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Applicant: Barker et al.
REPLACEMENT SHEET

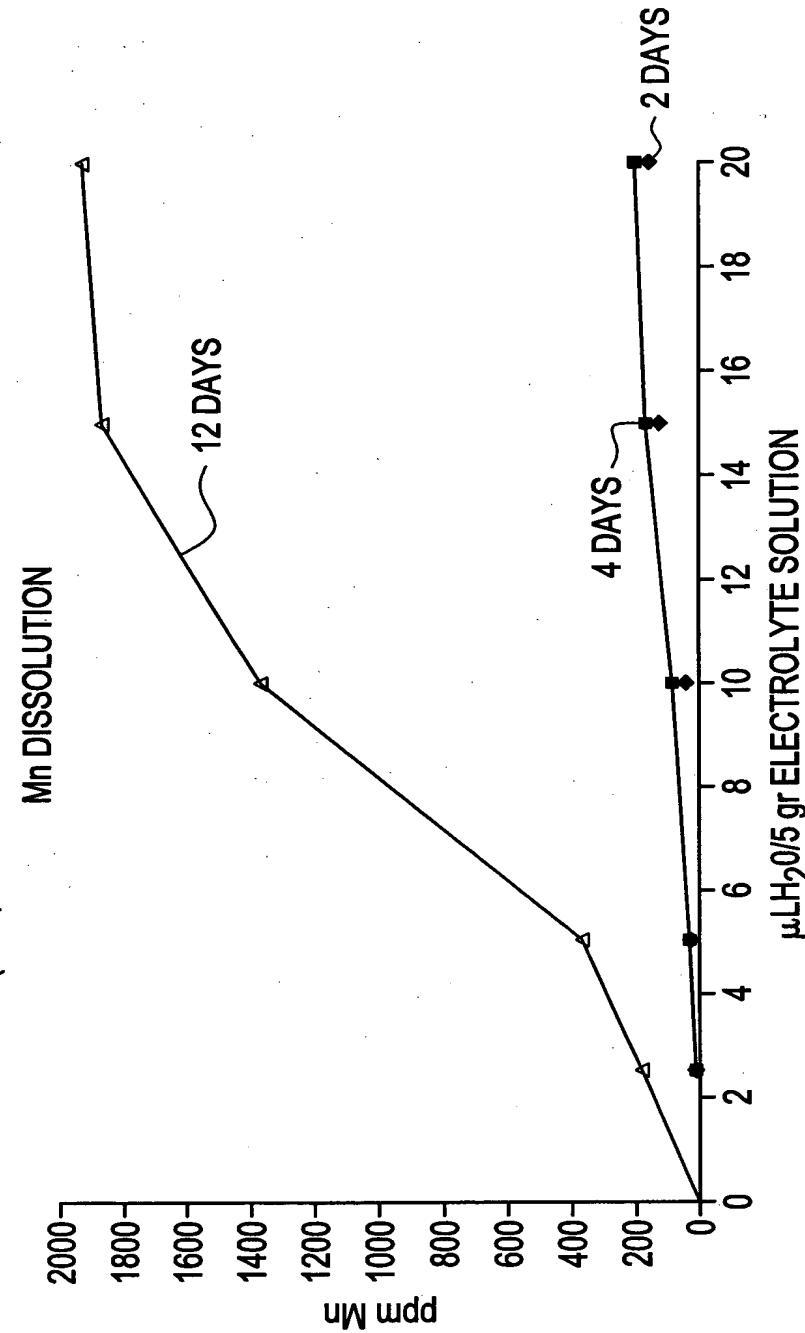
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FIG. 1

THE WATER CORRELATION

- EXP.
1. ADDITION OF 0, 2.5, 5, 10, 15 AND 20 μL OF H_2O
 2. BACKGROUND:LMO IN ELECTROLYTE (RESIDUAL WATER)
 3. BLANK:LMO IN ELECTROLYTE WITH Li₂C₀₃

A. DIRECT CORRELATION (2ND DAY, Mn²⁺ vs AMOUNT OF WATER ADDED
B. TIME EFFECT (2ND, 4TH AND 12TH DAY AFTER INITIATION



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FIG. 2

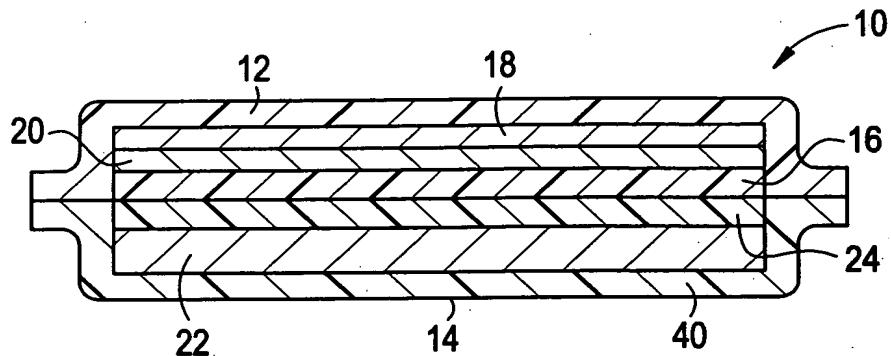
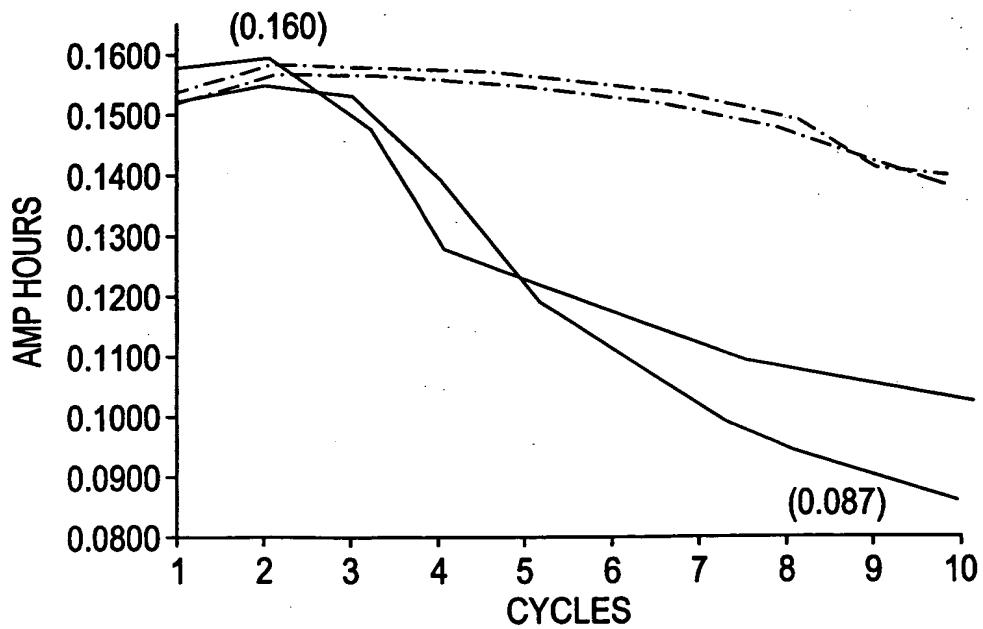


FIG. 3

LMO CELLS WITH & WITHOUT Li_2CO_3 CYCLED @ 60°C
DISCHARGE CAPACITY vs CYCLES PROFILE:
(CYCLES 1 TO 10)



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FIG. 4

CELL VOLTAGE vs CAPACITY, CONSTANT CURRENT CYCLING.
BG35 / Li EC / DMC + 10% TRIBUTYLAMINE

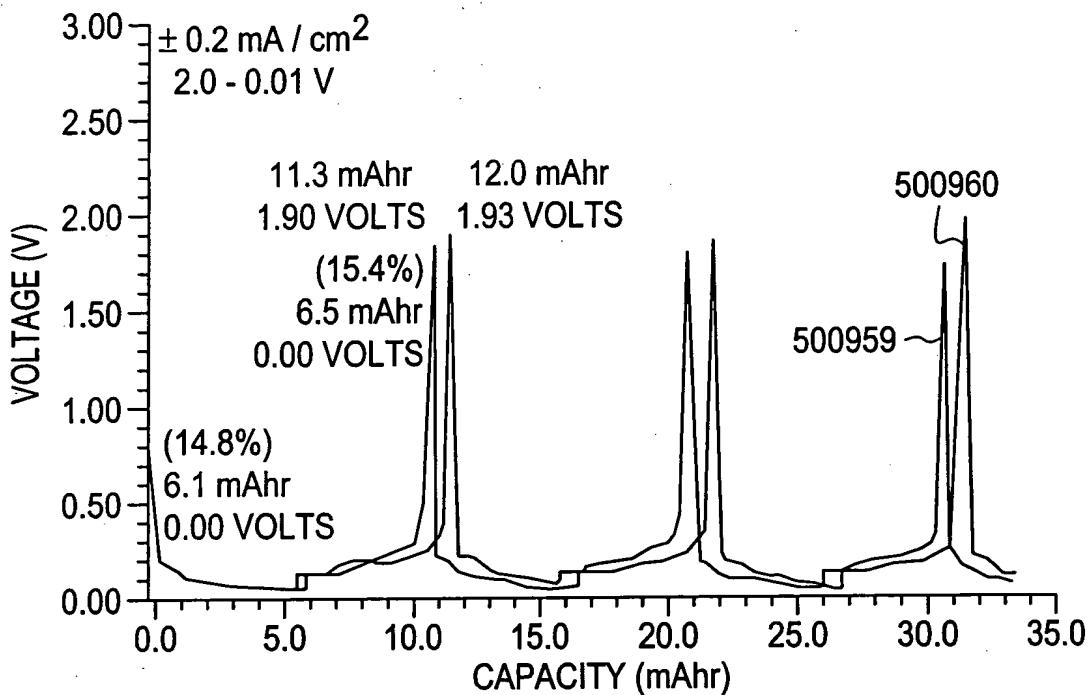
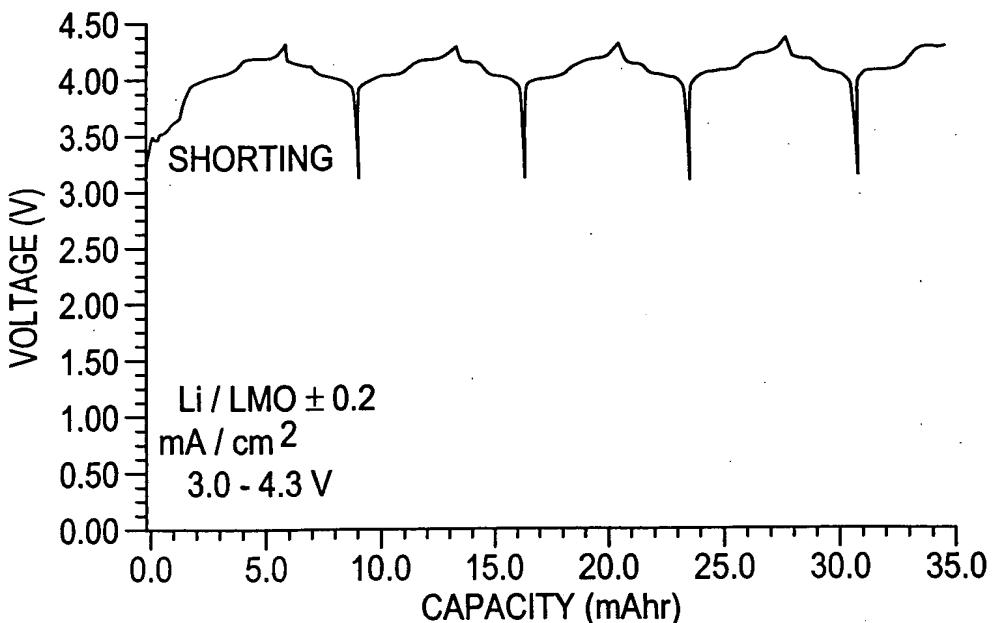


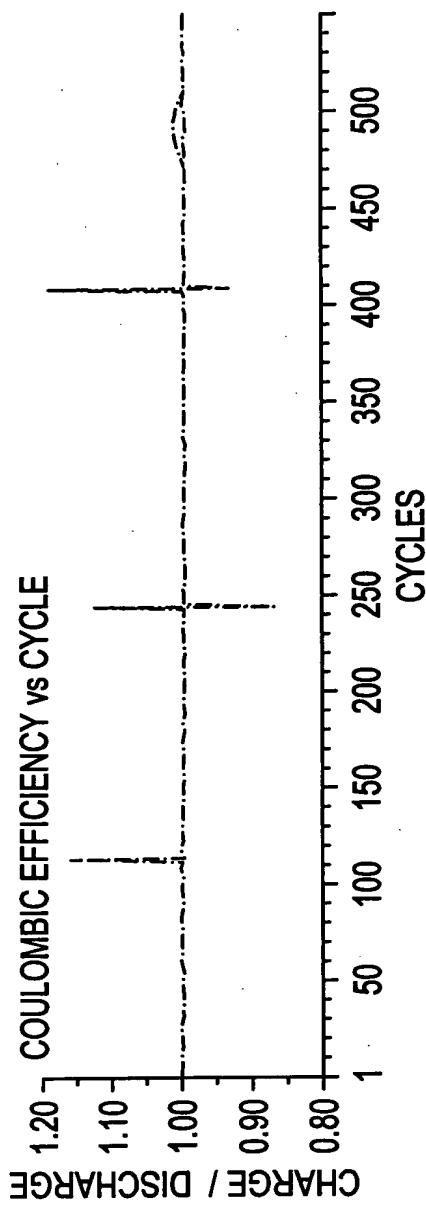
FIG. 5

CELL VOLTAGE vs CAPACITY, CONSTANT CURRENT CYCLING.
Li / LMO / EC / DMC LiPF6 + 10% TRIBUTYLAMINE (TB)

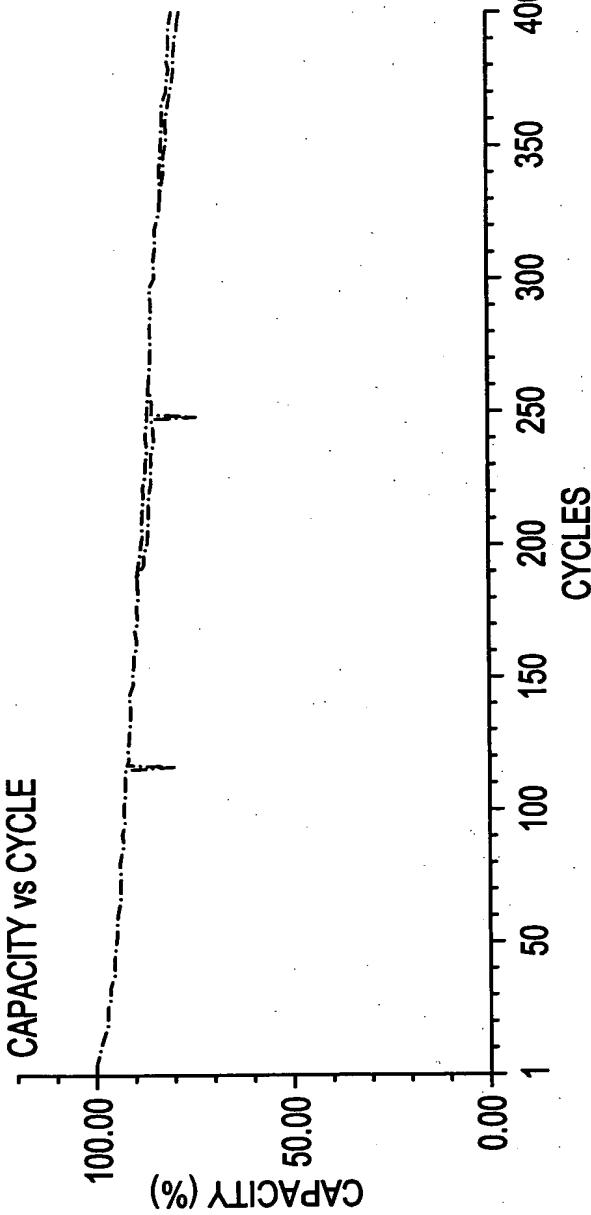


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CYCLING OF SURFACE MODIFIED LMO CELLS @ 23C DISCHARGE = C / 2 CHARGE = C / 5



CYCLING OF SURFACE MODIFIED LMO CELLS @ 23C DISCHARGE = C / 2 CHARGE = C / 5



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LiMn2O4 w / dec. 0.5%Na₂CO₃ vs. MCMB2528 23 AND 60°C

COULOMBIC EFFICIENCY VS CYCLE

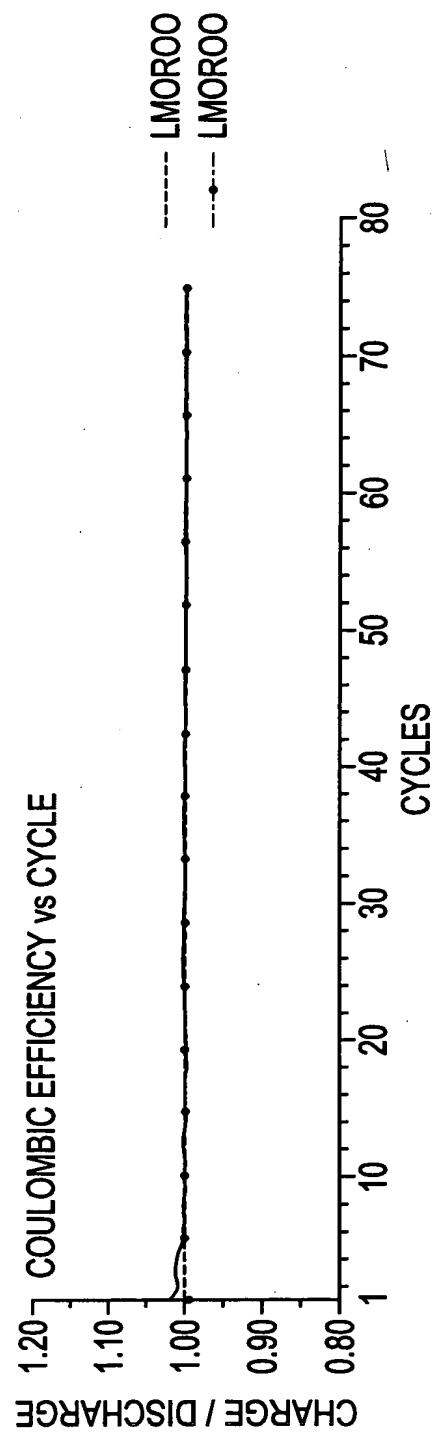


FIG. 6C

LiMn2O4 w / dec. 0.5%Na₂CO₃ vs. MCMB2528 23 AND 60°C

CATHODE SPECIFIC DISCHARGE CAPACITY VS CYCLE

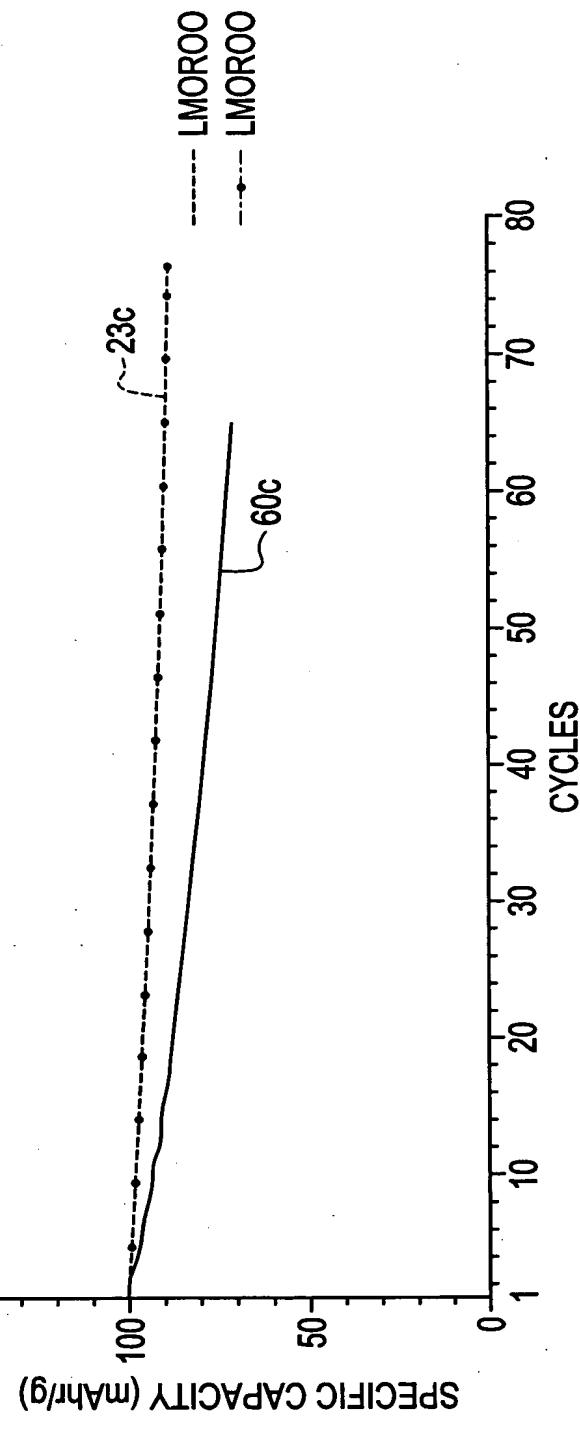


FIG. 6D

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GRAPHITE / LMO:CELLS CYCLED AT 60°C DISCHARGE = C / 2:CHARGE = C / 5

COULOMBIC EFFICIENCY vs CYCLE

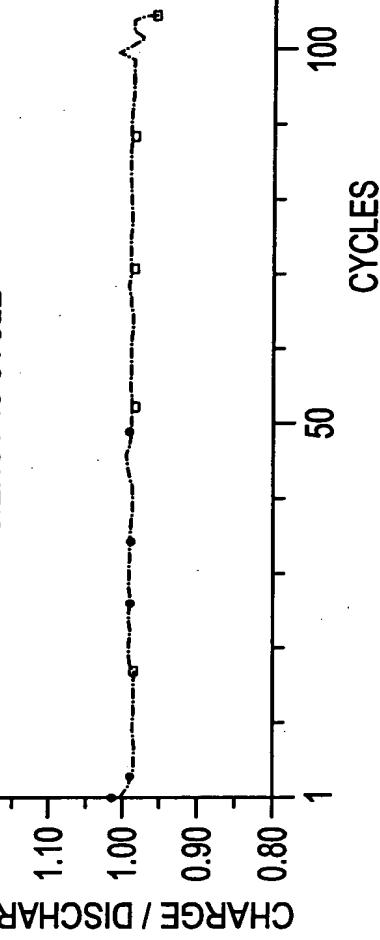


FIG. 7A

GRAPHITE / LMO:CELLS CYCLED AT 60°C DISCHARGE = C / 2:CHARGE = C / 5

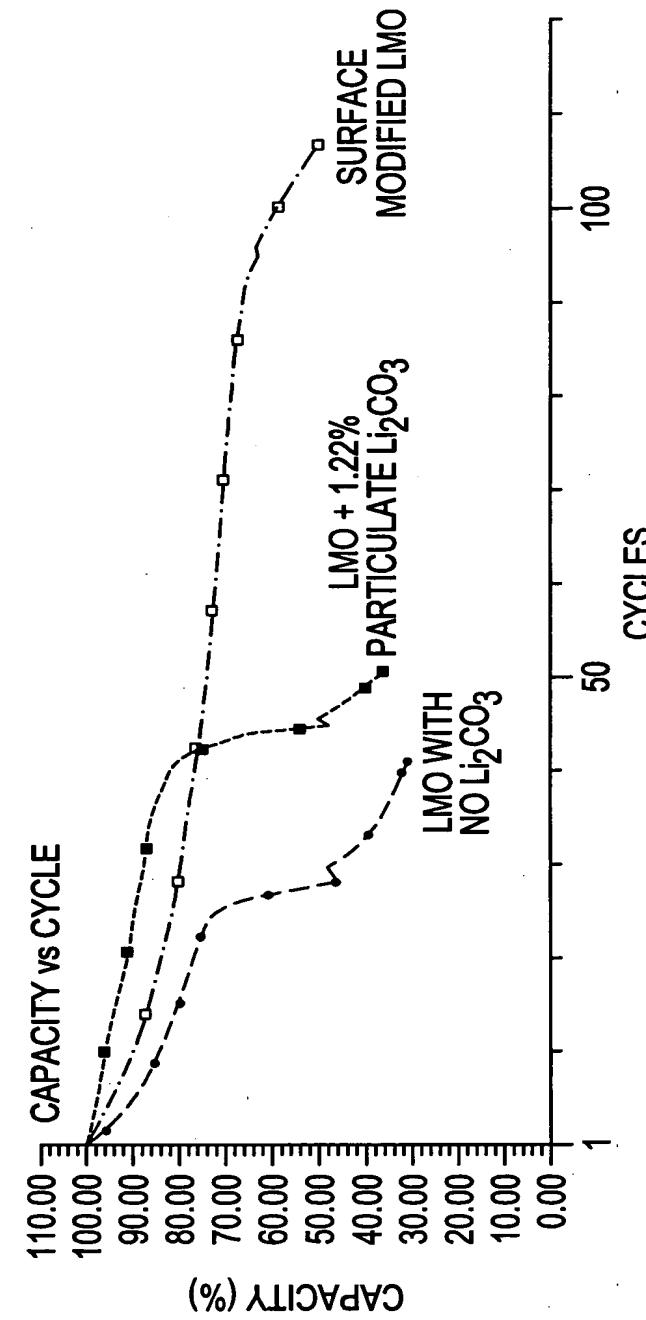


FIG. 7B

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FIG. 8

GRAPHITE / LiMn_2O_4 IMPEDANCE VARIATION DURING 60°C STORAGE

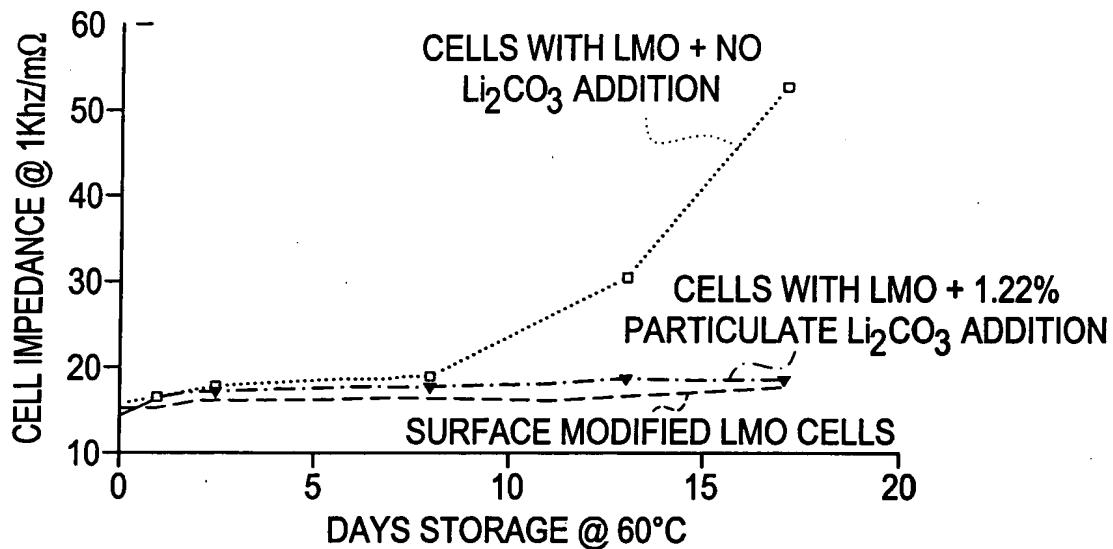
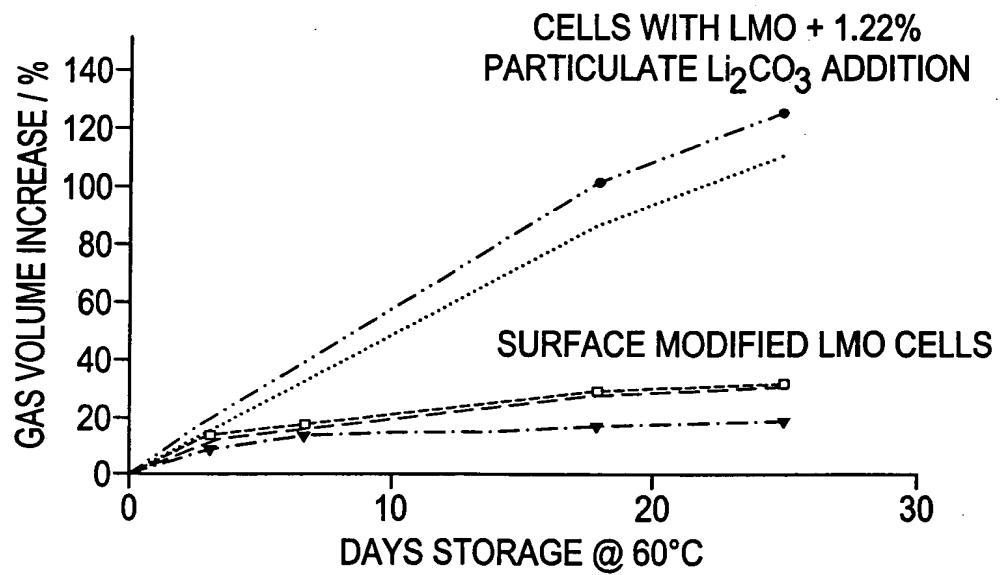


FIG. 9

GRAPHITE / LiMn_2O_4 GAS VOLUME VARIATION DURING 60°C STORAGE



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FIG. 10

Mn 2p PEAKS

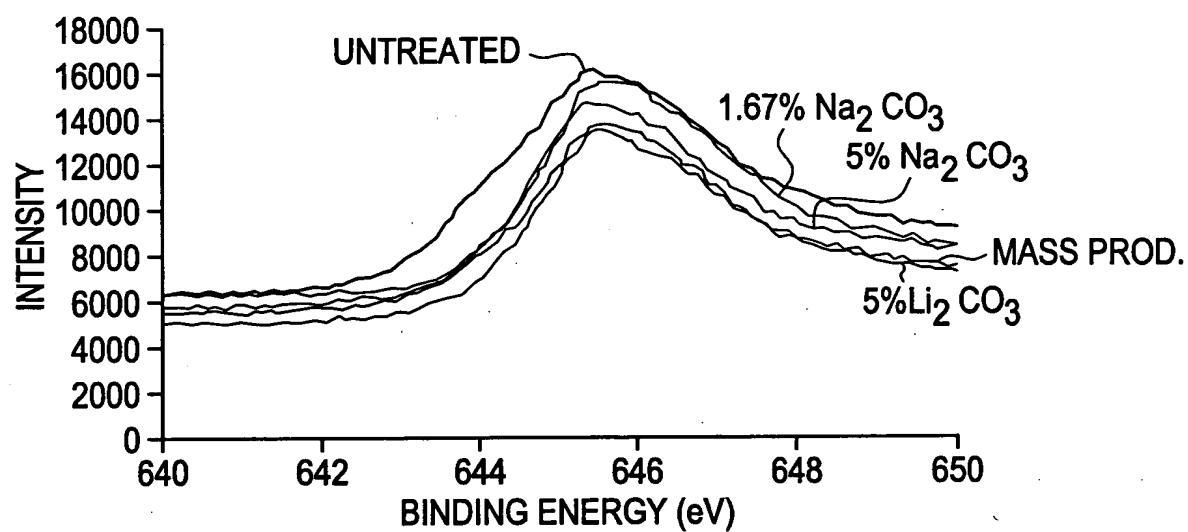
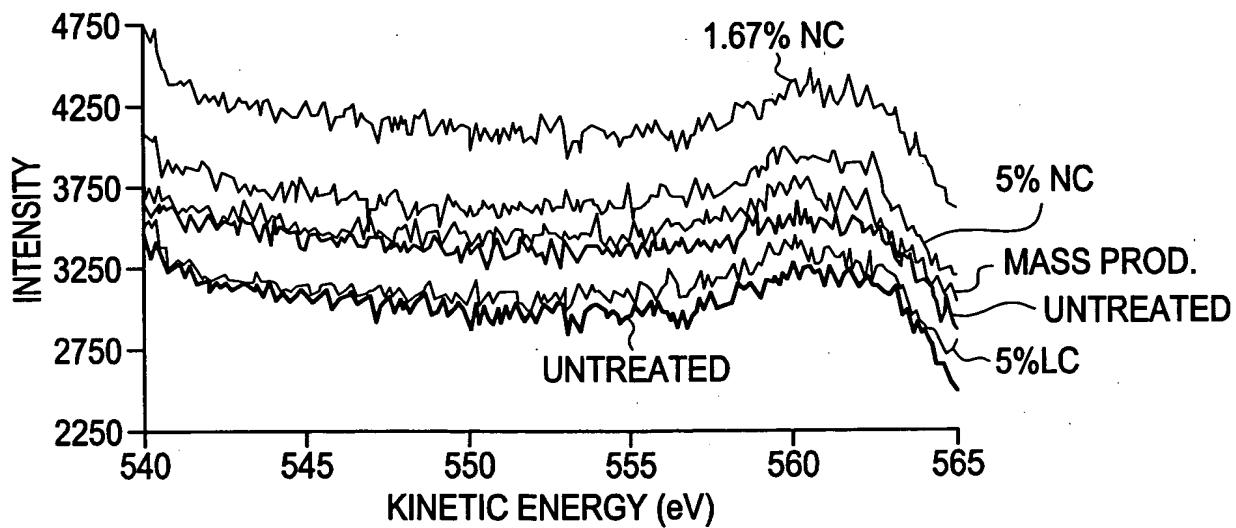


FIG. 11

Mn LMM AUGER PEAKS



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FIG. 12

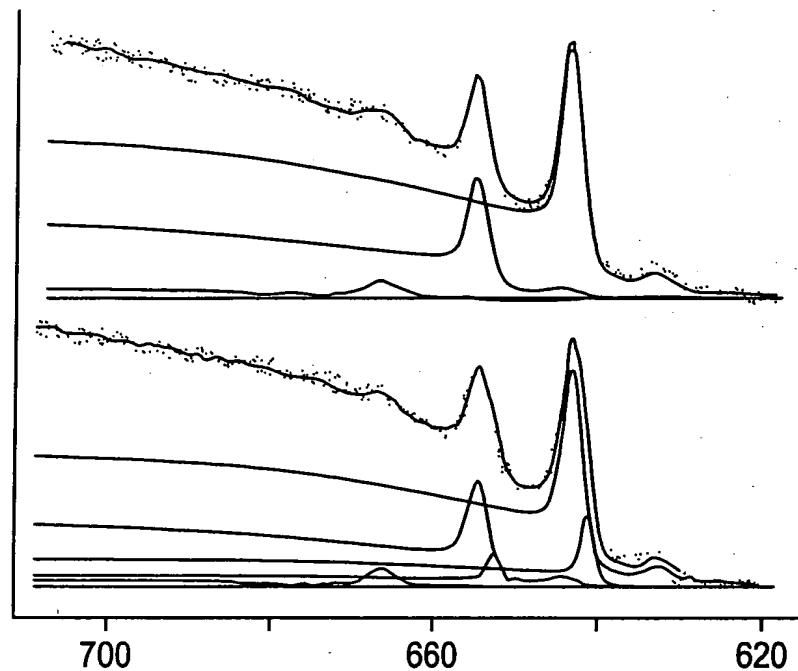
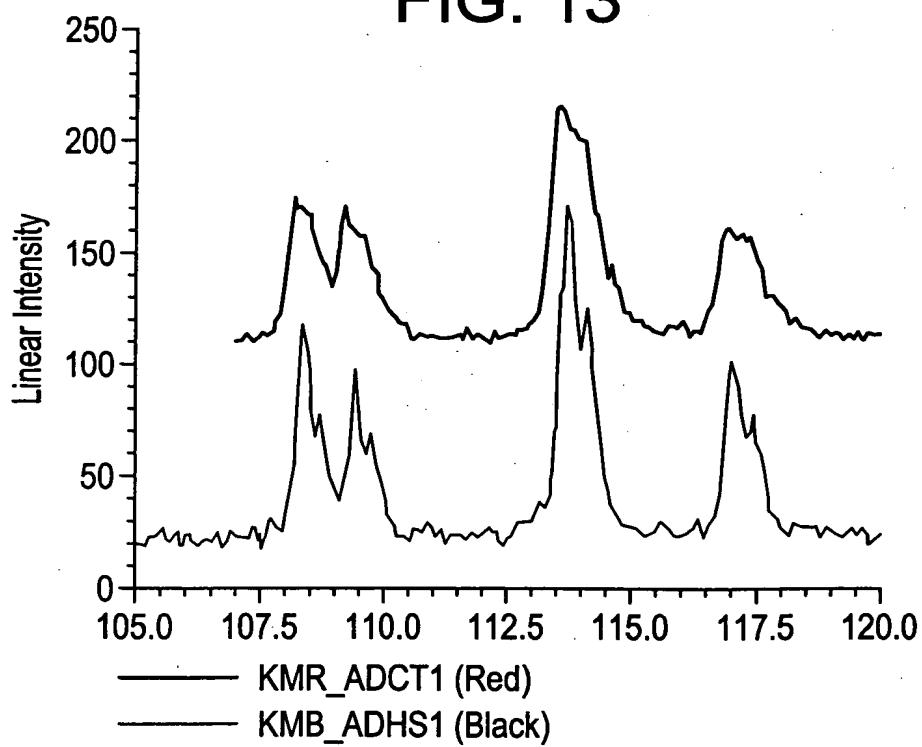


FIG. 13



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FIG. 14

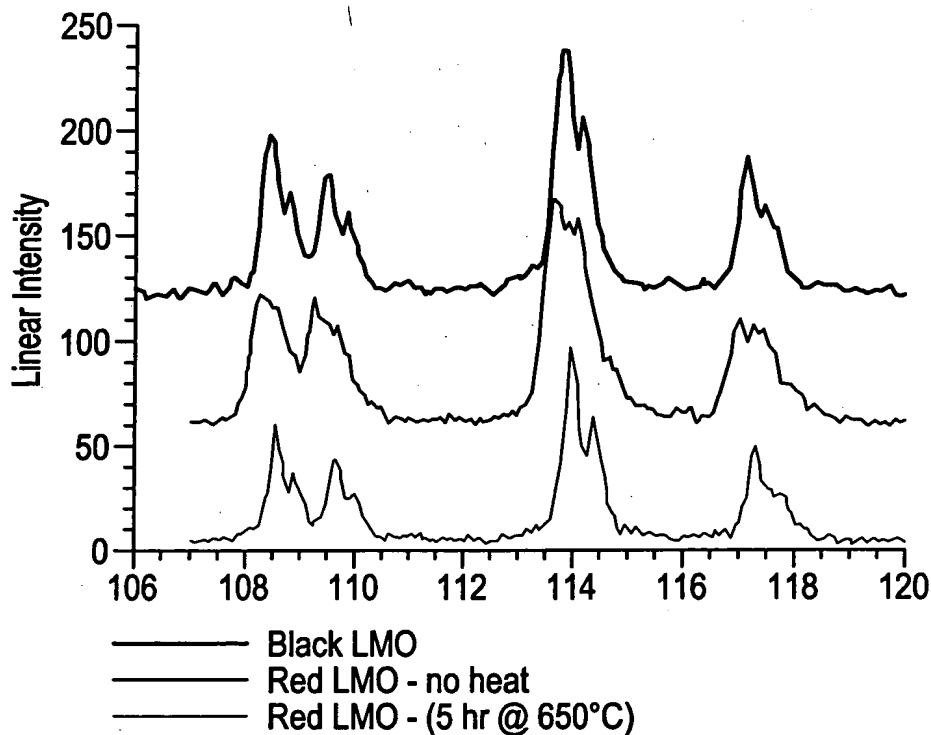


FIG. 15

